

## Required Supplementary Information

### Information About Infrastructure Assets Reported Using the Modified Approach

As allowed by GASB Statement No. 34, Basic Financial Statements – and Management's Discussion and Analysis - for State and Local Governments, the State has adopted an alternative process for recording depreciation expense on selected infrastructure assets. Under this alternative method, referred to as the modified approach, the State expenses certain maintenance and preservation costs and does not report depreciation expense. Assets accounted for under the modified approach include the State's network of public transportation roads and bridges, including ancillary assets, such as guard rails, signs, lighting, culverts, fencing, and the like. The State is responsible for maintaining approximately 27,478 lane miles of roads and 4,761 bridges (spans in excess of 20 feet).

In order to utilize the modified approach, the State is required to:

- Maintain an asset management system that includes an up-to-date inventory of eligible infrastructure assets.
- Perform condition assessments of eligible assets and summarize the results using a measurement scale.
- Estimate each year the annual amount to maintain and preserve the assets at the condition level established and disclosed by the State.
- Document that the assets are being preserved approximately at, or above, the established condition level.

### Roads

#### Measurement Scale

The Michigan Department of Transportation (MDOT) uses numerous methods to determine the condition of roadway pavements; however, the Sufficiency Rating serves as the State's primary method to measure and monitor pavement conditions. In use since 1961, the Sufficiency Rating is a visual analysis conducted by an engineer and includes a 5-point scale, as follows:

Rating	Bituminous Surface	Concrete Surface
1.0 = Excellent	Pavement shows no visible deterioration. Distresses are non-existent.	Same
2.0 = Good	Some indication of initial deterioration, but not yet requiring appreciable amounts of maintenance. Distress items include the start of small transverse and/or longitudinal cracks. Slight rutting may be apparent in the wheel path.	Some indication of initial deterioration, but not yet requiring appreciable amounts of maintenance. Distress items may include the start of small transverse and/or longitudinal cracks, or slight seam and joint separation. Joints may show very small amounts of deterioration.
3.0 = Fair	Average deterioration requiring occasional routine maintenance. Distresses may include minor transverse and longitudinal cracking becoming continuous throughout the segment. Severe cracking is patched effectively. Rutting may be a little more severe and hold small amounts of water.	Average deterioration requiring occasional routine maintenance. Distresses may include minor transverse and longitudinal cracking becoming continuous throughout the segment. Severe cracking is patched effectively. Through-lanes and shoulders may begin to show separation from failing tie bars.
4.0 = Poor	Excessive deterioration requiring frequent maintenance and warrants resurfacing soon. Distress may be evident in wide transverse and longitudinal cracks. Severe "shallow cracking" could be evident if the pavement is composite. If the segment has been patched, the cracks may be showing through. Rutting is severe and may effect driving.	Excessive deterioration requiring frequent maintenance and warrants resurfacing soon. Distress may be evident in wide transverse and longitudinal cracks. If the segment has been patched, cracks may be showing through. Joint repairs could begin to fail. Shoulder and/or through-lane separation may be apparent. Popouts or spalling could also be present in the section.
5.0 = Very Poor/ Failed	Extreme deterioration requiring continuous maintenance and warrants resurfacing or total cross-section replacement. Distress items may include severe transverse and longitudinal cracking or severe alligator cracking. Shadow cracking in composite pavement is wider than one inch. Rutting in wheel path may be severe and patching is no longer beneficial to pavement condition.	Extreme deterioration requiring continuous maintenance and warrants resurfacing or total cross-section replacement. Distress items may include severe transverse and longitudinal cracking, joints failing, and the patching is no longer beneficial to pavement condition. Spalling and edge cracking could also be severe.

#### Established Condition Level

No more than 30% of the pavements shall be rated as "poor" or "very poor."

#### Assessed Conditions

The State assesses condition on a calendar year basis. The following table reports the percentage of pavements meeting ratings of "Good" or "Poor," for the past three years. "Good" represents ratings of 1.0 through 3.0 above and "Poor" represents ratings of 4.0 and 5.0.

Rating	2007	2006	2005
Good	83.6%	83.2%	81.4%
Poor	16.4%	16.8%	18.6%

## Bridges

### Measurement Scale

MDOT utilizes the National Bridge Inventory to monitor the condition of bridges (spans in excess of 20 feet) under its jurisdiction. The inventory rates bridges, including the deck, superstructure and substructure, using a 10-point scale:

Rating	Description
9	Excellent (no specific definition).
8	Very good. No problems noted.
7	Good. Some minor problems.
6	Satisfactory. Structural elements show some minor deterioration.
5	Fair. All primary structural elements are sound but may have minor section loss, cracking, spalling, or scour.
4	Poor. Advanced section loss, deterioration, spalling, or scour.
3	Serious. Loss of section, deterioration, spalling, or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
2	Critical. Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
1	Imminent failure. Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic, but corrective action may put it back in light service.
0	Failure. Out of service; beyond corrective action.

### Established Condition Level

No more than 35% of the highway bridges shall be rated as "structurally deficient."

### Assessed Conditions

"Structurally deficient" results when a condition of 4 or worse is assessed to at least one of the major structural elements (e.g. the deck, superstructure, or substructure). The following table reports the percentage of bridges whose condition was assessed as "structurally deficient," in the stated year:

Calendar Year	Structurally Deficient
2007	11.4%
2006	12.8%
2005	15.2%

Bridges that do not carry highway traffic are not included in MDOT's condition assessment. As a result, the number of bridges that were evaluated (4,416) in calendar year 2007 is less than the total (4,761) maintained by the department.

MDOT implemented a change in methodology for the above table in calendar year 2006. Comparable prior year amounts are not available.

### Estimated and Actual Costs to Maintain

The following table presents the State's estimate of spending necessary to preserve and maintain the roads and bridges at, or above, the "Established Condition Levels" cited above, and the actual amount spent during the past five fiscal years (in millions):

Fiscal Year	Estimated Spending	Actual Spending
2009	\$1,081.7	\$ -
2008	\$ 829.0	\$1,003.7
2007	\$1,013.0	\$1,139.0
2006	\$1,109.0	\$1,131.4
2005	\$ 932.0	\$1,072.3
2004	\$ 921.0	\$ 857.6